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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,795	06/08/2005	Evan Nielsen	66386-356-7	3035

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EXAMINER	
LE, TOAN M	

ART UNIT	PAPER NUMBER
2863	

MAIL DATE	DELIVERY MODE
05/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/525,795	NIELSEN, EVAN	
	Examiner	Art Unit	
	Toan M. Le	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 21-24* is/are rejected.

7)☒ Claim(s) *10-20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10/19/05;2/25/05* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 10-20 and 24 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. For instance, it is not clearly pointed out how to determine the ratio of liquid to frozen particles by an optical measurement and subsequent calculation.

Claim Rejections - 35 USC § 112

The following is a quotation of the second and fourth paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
>
> Subject to the following paragraph, a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporated by reference all the limitations of the claim to which it refers.

Claims 21-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, and under 112 fourth paragraph, as being an improper dependent claim.

These claims are not drawn to the subject matter of their parent claim and then further restrict such, but are drawn to a different combination that then includes features of the

mentioned parent claim. They may even be drawn to a different statutory invention class under 101 or possibly even different and restrictable invention altogether. Claims such as 21-24 become entirely nebulous and indefinite as to exactly what is even intended to be covered by the claim, as a method cannot include the apparatus. These claims are therefore not further considered on the merits.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2 and 4-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Rasmussen et al. (US Patent No. 7,129,846).

Referring to claim 1, Rasmussen et al. disclose a method of determining the risk of ice deposition due to precipitation, wherein air temperature is measured and a type of precipitation and an amount of precipitation are estimated, characterized in that a measurement is performed for determining the actual amount of ice contained in the precipitation; and that the results from said measurements are combined for determining the risk of ice deposition (col. 5, lines 52-67 to col. 6, lines 1-28).

As to claim 2, Rasmussen et al. disclose a method of determining the risk of ice deposition due to precipitation, characterized in that the type of precipitation is estimated on the

basis of a measurement for determining the ratio of liquid to frozen particles contained in the precipitation (col. 3, lines 42-51).

Referring to claim 4, Rasmussen et al. disclose a method of determining the risk of ice deposition due to precipitation, characterized in that a measurement is performed for determining the total equivalent, liquid amount of precipitation (col. 6, lines 3-38).

As to claim 5, Rasmussen et al. disclose a method of determining the risk of ice deposition due to precipitation, characterized in that the measurement for determining the actual amount of ice contained in the precipitation is performed as a calculation on the basis of dew point measurement (col. 8, lines 66-67 to col. 9, lines 1-4).

Referring to claim 6, Rasmussen et al. disclose a method of determining the risk of ice deposition due to precipitation, characterized in that the measurement for determining the actual amount of ice contained in the precipitation is performed as a measurement of actual ice formation (col. 7, lines 45-53).

As to claim 7, Rasmussen et al. disclose a method of determining the risk of ice deposition due to precipitation, characterized in that the measurement comprises provision of a surface element that has a predetermined surface area and is, during a predetermined period of time, caused to move relative to the atmospheric air, following which the amount of ice accumulated on the surface element during said period of time is measured (col. 6, lines 4-28).

Referring to claim 8, Rasmussen et al. disclose a method of determining the risk of ice deposition due to precipitation, characterized in that the temperature of the surface element is caused to correspond essentially to the temperature of the atmosphere (col. 6, lines 4-28).

As to claim 9, Rasmussen et al. disclose a method of determining the risk of ice deposition due to precipitation, characterized in that the temperature of the surface is caused to have another predetermined temperature during said period of time (col. 6, lines 4-28).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

"The HALO System- Applying the 'Safe Wing' Concept to Airline Operations in Ground Icing Conditions", Peterson et al., 1995 IEEE, Pages 152-157

"Ground-Based Detection of Aircraft Icing Conditions Using Microwave Radiometers", Fotino et al., IEEE Transactions on GeoScience and Remote Sensing, Vol. GE-24, No. 6, November 1986, Pages 975-982

"Automated Precipitation Detection and Typing in Winter: A Two-Year Study", Sheppard et al., 2000 American Meteorological Society, Pages 1493-1507

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan M. Le whose telephone number is (571) 272-2276. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Toan Le

May 8, 2007

DONALD E. McELHENY, JR.
PRIMARY EXAMINER